

ABSTRACT

A method of easily manufacturing a nano-gap electrode by using a focused ion beam lithography includes a layer depositing step of depositing an electrode layer and a metal mask layer in this order on an insulating substrate, a mask pattern forming step of etching the metal mask layer by using the focused ion beam and thereby forming a mask pattern, a dry etching step of transferring a pattern to the electrode layer by dry etching, and a wet etching step of removing the metal mask layer by using a solution that selectively dissolves the metal mask layer compared to the electrode layer.